

REMARKS

Claims 2-4, 7-9, 11-13, 16-18, 21-23, 25-29, 31-32, 38-40, 43-45 and 48-50 remain in the application with claims 2, 7, 11, 16, 21, 27, 38, 43 and 48 having been amended hereby. Claims 1, 5, 6, 10, 14, 15, 19, 20, 24, 30, 33-37, 41, 42, 46, 47, and 51.

Reconsideration is respectfully requested of the rejection of claims 2-4, 7-9, 11-13, 16-18, 21-23, 25-29, 31-32, 38-40, 43-45 and 48-50 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,805,581, to Uchida et al. in view of U.S. Patent No. 6,018,528 to Gitlin et al., U.S. Patent No. 4,792,952 to Weston, and/or U.S. Patent No. 5,940,143 to Igarashi et al.

Independent claim 2, as amended, relates to a communication system including a base station device having transmission means for carrying out communication of a down link to a communication terminal device by using a **multi-carrier signal** having data dispersed to a plurality of subcarriers for transmission **by applying an orthogonal frequency division multiplex (OFDM)**, and receiving means for receiving a multi-carrier signal having data dispersed to a plurality of subcarriers or a single-carrier signal transmitted from the communication terminal device and demodulating the data thereof. A **first communication terminal device** has a transmission means for carrying out communication of an up link to the base station device by using a **multi-carrier**

**signal** having data dispersed to a plurality of subcarriers for transmission, and receiving means for receiving the multi-carrier signal having the data dispersed to the plurality of subcarriers transmitted from the base station device and demodulating received data. A **second communication terminal device** has transmission means for carrying out communication of an up link to the base station device by using a **single-carrier** signal, and receiving means for receiving the multi-carrier signal having the data dispersed to the plurality of subcarriers transmitted from the base station device and demodulating the received data. The **base station device further includes discrimination means** for discriminating whether a received signal is the **multi-carrier signal or the single-carrier signal**, such that demodulation processing conforming to the received signal is carried out by the receiving means based upon a result of discrimination of the discrimination means, and including error detecting means for performing error detection on the received signal before the discriminating operation.

Uchida et al. relates to a mobile communication system which includes a plurality of mobile and/or portable radio stations, radio base stations and at least an exchange system. The mobile communication system can cope with a radio communication system applying variable access methods, modulation methods and

transmission methods. The mobile communication system may include a plurality of mobile and/or portable radio station, a radio base stations and at least an exchange and which realizes roaming and handover between systems using different access methods.

Gitlin et al. relates to a system and method for maximizing usage of a communications transmission medium while preserving optimum access to the medium for users of differing access speeds and while maximizing spectral use and bandwidth efficiencies.

Weston relates to a receiver for the demodulation of an FSK signal for passage to ancillary equipment having an error-corrector prior to a demodulator. In preparing received signals for error-correction, they are passed to a counter that notes the number of cycles within each symbol of the signal. Thereafter, this count is used by a calculator and a classifier to derive a confidence level indicating the degree of certainty of the symbol having the carrier frequency. This confidence level is used in the error-correcting and/or demodulation operations.

Igarashi et al. relates to a high-definition television signal receiving apparatus and an automatic gain controlling apparatus thereof for use in a circuit that extracts for processing only a desired signal from a sum signal of two or more signals having different frequency-division-multiplexed levels. The high-definition television signal receiving apparatus has a

capability of suppressing interference between channels caused when broadcasts having different signal levels such as a high-definition television signal and a standard television signal are transmitted simultaneously.

The cited art, alone or in combination, fails to teach or suggest a communication terminal device using a multi-carrier signal having data dispersed to a plurality of subcarriers for transmission by applying an orthogonal frequency division multiplex (OFDM), a first communication terminal device using a multi-carrier signal, and a second communication terminal device using a single-carrier signal, where the base station device discriminates whether a received signal is the multi-carrier signal or the single-carrier signal.

The Examiner alleges that Gitlin et al. teaches a first communication terminal device using a multi carrier signal. Gitlin et al. indicates that a "high-speed user 46 will have the ability to modulate their signal so as to cover one or more frequency bands 42." However, neither Gitlin et al., nor the other art cited by the Examiner, teaches or suggests that the terminal device uses a multi-carrier signal having data dispersed to a plurality of subcarriers for transmission by applying an orthogonal frequency division multiplex (OFDM).

Therefore, independent claim 2 is patentably distinct from

the cited art for at least the above reason. Moreover, claims 3-4, 7-9, 11-13, 16-18, 21-23, 25-29, 31-32, 38-40, 43-45 and 48-50 are patentably distinct from the cited art for at least similar reasons.

Therefore, by reason of the amendments made to the claims hereby, as well as the above remarks, it is respectfully submitted that communication system, base station device, communication terminal device and communication method, as taught by the present invention and as recited in the amended claims, is neither shown nor suggested in the cited references.

The references cited as of interest have been reviewed and are not seen to show or suggest the present invention as recited in the amended claims.

Entry of this amendment is earnestly solicited, and it is respectfully submitted that the amendments made to the claims hereby raise no new issues requiring further consideration and/or search, because all of the features of this invention have clearly been considered by the examiner in the prosecution of this application and because the present amendments serve only to further define and emphasize the novel features of this invention.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

COOPER & DUNHAM LLP

A handwritten signature in dark ink, appearing to read "Jay H. Maioli". The signature is fluid and cursive, with the first name "Jay" and last name "Maioli" clearly distinguishable.

Jay H. Maioli  
Reg. No. 27, 213

JHM/JBG